



Department of Presidential Affairs

Department of Economic, Social and Environmental Affairs

## Memorandum of Understanding: appendix

### 1. Profile

Government name	Canton of Basel-Stadt
Urban centre	City of Basel
Country	Switzerland
Name of leader	President of the Government, Elisabeth Ackermann
Area	37 km <sup>2</sup>
Population (2015)	197,005
GDP	30,990,000,000 Swiss Francs (2013) / 31,484,035,452.3000 US Dollar
GHG emissions	

Scope	Metric tonnes CO <sub>2</sub> e	Level of confidence
Scope 1 emissions excluding emissions from grid-supplied energy generation	504374	Medium
Scope 1 emissions from grid-supplied energy generation within the city boundary	279558	Medium
Total Scope 1 emissions (Row 1 + Row 2)	783932	Medium
Total Scope 2 emissions	321821	High

Basel is the centre of a large, tri-national living space with over 830,000 people in 205 municipalities and three countries (Switzerland, Germany and France).

The Basel area with 197,005 inhabitants in the Canton of Basel and 174,904 inhabitants within the city of Basel is Switzerland's second important business centre, and enjoys the country's fastest rate of economic growth. This success story has been built upon the global achievements of its pharmaceutical and chemical companies, among them two of the world's top five. In their wake, a whole cluster of life sciences start-ups and spin-offs create a very dynamic economic climate. A number of leading international logistics service providers are also domiciled in this city. Furthermore, Basel is a successful exhibition and congress city, in which architecture and design also play an important part in the city's thriving economy. And finally, Basel has developed into Switzerland's second most-important financial and insurance centre, after Zurich. All these factors help underpin Basel's high standard of living. And last but not least, research and education play an important role in Basel's wealth: the city runs excellent schools, one of Europe's oldest universities and an innovative University of Applied Sciences.

Basel is a pioneer in energy politics and in mobility politics. A direct democratic system and broad possibilities of civic participation characterise the general development. With a holistic understanding of sustainable development, the Canton of Basel-Stadt integrates sustainable development into the pursuit of all long-term goals, as well as short-term measures.

## 2. Climate policy

Basel-Stadt is taking a two-pronged approach: climate action to reduce greenhouse gas emissions and adaptation to the consequences of climate change.

The climate policy of the Canton of Basel-Stadt is largely based on a strategy of energy efficiency and on developing renewable energies. The canton is also attempting to motivate its population to lead a climate-friendly lifestyle, with information and advice about the topic of climate protection, and to therefore also encourage eco-sufficiency.

The canton adheres to the following principles: economical energy use, conservation of resources, use of ambient heat and waste heat where possible, the energy consumption of new buildings should be near zero, measures to increase renewable energies should be taken and energy efficiency and renewable energies should receive financial support.

## 3. Objectives

The climate policy of the Canton of Basel-Stadt follows the objectives of the international climate convention, and more precisely, the energy policy of the Swiss Confederation (CO<sub>2</sub> law); 20% fewer greenhouse gas emissions by 2020, 50% fewer by 2030 (minimum 30% fewer in the home country) and 70-85% fewer by 2050, in comparison with the reference year 1990.

However, some of the objectives set by the Canton of Basel-Stadt are stricter than those of the Swiss Confederation. The following objectives are embodied in cantonal energy law:

- CO<sub>2</sub> emissions: 1 tonne per person and year by 2050
- Electricity: 100% renewable
- District heating: 80% climate-neutral by 2020 (from wood and waste)
- In the long term, 90% of the energy consumption in the canton of Basel is to be covered using renewable sources or waste heat.

## 4. Implementation

The Canton of Basel-Stadt has various laws and programmes that make a progressive climate policy possible:

- **Cantonal energy legislation**, for example, ensures that there are strict regulations for new buildings (insulation, domestic electrical and plumbing systems, use of energy sources, etc.) and financial support for refurbishing buildings with a view to environmentally friendly energies and techniques, on certain conditions.
- The **cantonal constitution** opposes the use of nuclear energy and prohibits involvement in nuclear power plants.
- **Electricity supply legislation** ensures that electricity supply in the canton comes from renewable energies.
- The **cantonal structure plan** supports the strategy of settlement development, for example. On a regional level, journeys between place of residence, place of work and leisure activities are reduced and vehicle-kilometres saved.
- The **agglomeration programme** and the **transport policy concept** coordinate transport and settlement development and enable the most environmentally friendly transport possible (support and development of public transport and non-motorised transport, parking management, etc.).

- The **air quality maintenance plan of the Cantons of Basel-Stadt and Basel-Landschaft** stipulates measures for air quality management and therefore also, in some cases, for a reduction in greenhouse gas emissions.

The Canton of Basel-Stadt has also signed a number of agreements and has received certificates and labels.

- Under2Coalition of The Climate Group act
- Compact of Mayors
- C40 Cities
- ICLEI
- KlimaBündis-Städte Schweiz
- “Energistadt” label
- “Energistadt auf dem Weg in die 2000-Watt-Gesellschaft” label
- “2000-Watt-Areale” certificate

## **5. The most important measures to be implemented**

The following measures make a climate-friendly policy in the Canton of Basel-Stadt possible:

### **Buildings and infrastructure**

**New buildings:** the objective is virtually zero-energy buildings, involving building technology for heating, hot water, ventilation and air-conditioning. This entails compulsory efficient building envelopes, compulsory use of renewable energies (ambient heat air/water/soil, waste heat or district heating), compulsory on-site electricity generation (e.g. with photovoltaics) and compulsory summertime thermal insulation. Air-conditioning is only permitted under certain conditions.

**Building refurbishment:** a system based on renewable energy (heat pumps, wood, waste heat, district heating) must be used when replacing the heat generators (heating and/or hot water) in existing buildings. If this is technically not possible or if it leads to additional costs, the proportion of fossil energies may not exceed 80% of the definitive heating energy requirement.

**Optimisation of use:** in non-residential buildings, there is an obligation to regularly optimise use of systems for heating, ventilation, air-conditioning, cooling and electro and building automation.

**Example of public authorities:** heating of cantonal buildings must be 95% fossil-free by 2050.

**Support tax and support contributions:** a support payment of 9% of the network costs of an electricity bill has been set down since 1984. Using the annual income of around 10 million francs and global contributions from the national CO<sub>2</sub> tax, support contributions are then paid to private individuals and companies for renewable energy and energy efficiency measures in the context of building refurbishments. The contributions are paid at between 10% and 40% of investment costs.

**Solar energy register:** using a public solar energy register, with information about potential possible annual returns from photovoltaics and thermal solar systems, makes it easier for homeowners to recognise the suitability of roofs.

## **Energy supply**

District heating network: the Canton of Basel-Stadt has a district heating network, with which it satisfies 37% of the entire heat demand in the Canton of Basel-Stadt (industry and private households). District heating is largely generated by thermal utilisation of waste in the waste utilisation plant, as well as by the wood-fired power plant that was put into operation in 2008. The proportion of district heating that is climate-neutral is therefore around 63%. The climate-neutral proportion is supposed to increase to 80% by 2020, with an additional wood-fired power plant.

Cantonal energy structure plan: in the future, this is supposed to be an important decision-making basis for medium and long-term energy supply planning in the Canton of Basel-Stadt.

Incentive tax and electricity price bonus: there has been an incentive tax of between 3.1 and 5.2 rappen/kWh on electricity for industrial and private customers since 1998. This is supposed to provide an incentive to save electricity. The income is distributed back to all private individuals and businesses in the Canton of Basel-Stadt, through the annual electricity price bonus.

Biogas into natural gas: the proportion of biogas in the natural gas network of the energy provider of the Canton of Basel-Stadt is gradually increasing and amounted to 5% in 2016.

## **Industry, business and services**

Large consumers: industries and businesses with heat consumption of more than 5 GWh or electricity consumption of more than 0.5 GWh are required to analyse their energy use and to take reasonable measures to reduce consumption.

## **Land-use planning and transport**

The cantonal structure plan provides a strategy of inward settlement development. On a regional level, this reduces journeys between place of residence, place of work and leisure activities and saves vehicle-kilometres.

The agglomeration programme and the transport policy concept coordinate transport and settlement development and enable the most environmentally friendly transport possible. Public transport is constantly being developed and non-motorised transport promoted.

Stipulation of the maximum permitted parking spaces and parking management contribute to keeping the volume of private motorised traffic at a level that is sustainable for the environment and the city.

The switch to public transport is supported by subsidies for park & ride facilities, including subsidies outside the canton and outside the nearby national borders.

## **Other areas**

Resource conservation is also taken into consideration in the area of waste. Waste should be avoided, and recycled wherever possible. Waste is disposed of in the waste utilisation plant, where it is used to produce heat and electricity. The heat is fed into the district heating network. The "polluter pays principle" applies to waste disposal. Reusable crockery must be used at public events. Campaigns also draw the attention of the population to the problem of food waste.

Further measures are also taken in the context of sustainable development and regulating the legislative planning process.